

Drug-Disease Interaction: Medications and Fall Risk in Older Adults

According to the Centers for Disease Control and Prevention, more than one in four older adults report a fall each year.¹ Falls are a largely preventable problem, with the potential to reduce serious injuries, emergency department visits, hospitalizations, nursing home placements, and functional decline.² Over 800,000 patients are hospitalized annually for fall-related injuries, with total medical expenses exceeding \$31 billion.¹

Certain medications, such as psychoactive drugs, have consistently been associated with increasing risk of falls. If a patient must use a high fall risk medication, it should be used at the minimum effective dose for the shortest possible duration, while monitoring for falls.²

An important HEDIS measure assesses the use of medications with the potential to cause harmful drug-disease interactions in patients 65 years and older with a history of fall or hip fracture.³ The National Committee for Quality Assurance (NCQA) recommends avoiding certain medications that may increase a patient's fall risk. Consider the following alternative therapies in your patients who are 65 years of age and older at risk for falls:

Drug Class	Examples of Medications to Avoid ^{3*}		Potential Alternatives ^{4,5}
Anticonvulsants	<ul style="list-style-type: none"> carbamazepine divalproex sodium ethosuximide felbamate fosphenytoin gabapentin lamotrigine 	<ul style="list-style-type: none"> levetiracetam oxcarbazepine phenobarbital phenytoin pregabalin topiramate valproic acid 	<ul style="list-style-type: none"> For new-onset epilepsy: newer agents such as lamotrigine and levetiracetam preferred For neuropathic pain: OTC capsaicin topical or low-dose duloxetine for shortest duration possible For post-herpetic neuralgia: lidocaine patch For diabetic neuropathy: lidocaine patch⁵
Antipsychotics	<ul style="list-style-type: none"> aripiprazole brexpiprazole cariprazine clozapine fluphenazine haloperidol 	<ul style="list-style-type: none"> lurasidone olanzapine paliperidone quetiapine risperidone ziprasidone 	<ul style="list-style-type: none"> For delirium: short term use of antipsychotics should be restricted to those at risk to harm themselves or others For behavioral complications of dementia: low-dose low anticholinergic agents (risperidone, quetiapine) for shortest duration possible can be used after nonpharmacological approaches have failed
Benzodiazepines	<ul style="list-style-type: none"> alprazolam clonazepam diazepam estazolam 	<ul style="list-style-type: none"> lorazepam oxazepam temazepam triazolam 	<ul style="list-style-type: none"> For anxiety: buspirone, mirtazapine⁵ For insomnia: ramelteon, trazodone⁵, mirtazapine^{5A}
Nonbenzodiazepine hypnotics	<ul style="list-style-type: none"> eszopiclone zaleplon 	<ul style="list-style-type: none"> zolpidem 	<ul style="list-style-type: none"> For insomnia: ramelteon, trazodone⁵, mirtazapine^{5A}
Selective Serotonin Reuptake Inhibitors	<ul style="list-style-type: none"> citalopram escitalopram fluoxetine 	<ul style="list-style-type: none"> fluvoxamine paroxetine sertraline 	<ul style="list-style-type: none"> For depression: bupropion, trazodone, mirtazapine For anxiety: buspirone, mirtazapine⁵
Serotonin-Norepinephrine Reuptake Inhibitors	<ul style="list-style-type: none"> desvenlafaxine duloxetine 	<ul style="list-style-type: none"> levomilnacipran venflaxine 	<ul style="list-style-type: none"> For depression: bupropion, trazodone, mirtazapine For anxiety: buspirone, mirtazapine⁵ For neuropathic pain: OTC capsaicin topical or low-dose duloxetine for shortest duration possible
Tricyclic antidepressants	<ul style="list-style-type: none"> amitriptyline clomipramine desipramine doxepin (>6mg) 	<ul style="list-style-type: none"> imipramine nortriptyline protriptyline 	<ul style="list-style-type: none"> For depression: bupropion, trazodone, mirtazapine For neuropathic pain: OTC capsaicin topical or low-dose duloxetine for shortest duration possible

*Not a comprehensive list. A full list is available for download at: <http://store.ncqa.org/index.php/catalog/product/view/id/3741/s/hedis-2020-ndc>

⁵Off-label; ^{5A}For adults with insomnia secondary to comorbid depression or other mood disorders

References

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The CalOptima Approved Drug List is available on our website: www.caloptima.org
and for PDA download at www.epocrates.com